REMARKS

Claim Amendements

Claims 1 and 31 are currently pending herein.

Rejoinder

Applicants believe that Claims 1 and 31 are in condition for allowance and, therefore, respectfully request that withdrawn Claims 3, 5, 10-16, 18, 32, 40, 42, 95, 99 and 147 be rejoined.

Rejection of Claims 1 and 31 Under requirements of 35 U.S.C. §103(a)

Claims 1 and 31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kandimalla, Kandimalla and Simmonds.

Applicants respectfully disagree that the cited art teaches or suggests an oligonucleotide comprising the instantly claimed RpG dinucleotide, or the linking of two such oligonucleotides via a non-nucleotidic linker. Furthermore, Applicants disagree with the Office Action's characterization of the cited art and the alleged motivation to combine the cited art to reach the instantly claimed compound.

As stated in Applicants previous Response to this Office Action (submitted on August 21, 2008), which is incorporated herein by reference, the Office Action fails to explain how one skilled in the art would either be motivated to try, or have a reasonable expectation of success with this "simple" substitution considering Kandimalla (2001) teaches that a YpG-containing oligonucleotide in which Y was deoxy-P-base nucleoside showed **little or no immunostimulatory activity** (see page 809, column 2, lines 22-24)(emphasis added).

In an Advisory Action, mailed on September 17, 2008, the PTO takes the position that the claims do no place a required amount of immunostimulatory activity achieved by the claimed genus of immunomers, thus, "little immunostimulatory activity" reasonably fulfills the functional requirement. As stated by Dr. Kandimalla in the 132 Declaration submitted herewith, a CG-containing oligonucleotide having a deoxy-P-base modification at the C position (of the CG dinucleotide) was an inactive molecule and that the phrase "showed little or no immunostimulatory activity" meant that those modifications did not work. Thus, it is unclear how a CG-containing oligonucleotide having the instantly claimed modification resulting in a

functional molecule is an obvious variant of a deoxy-P-base modification which resulted in a non-functioning molecule.

The Office Action attempts to overcome this deficiency by pointing to the structural similarities between the instantly claimed modification and deoxy-P-base and points to the teaching in Kandimalla ('757) which states that "cytosine has two hydrogen bond acceptor groups at positions 2 (keto-oxygen) and 3 (nitrogen), and a hydrogen bond donor group at the 4-position (amino group). These groups can serve as potential recognizing and interacting groups with receptors that are responsible for immune stimulation." However, rather than supporting the rejection, the structural similarity between the instantly claimed modification and deoxy-P-base actually supports the lack of obviousness of the claimed invention. One skilled in the art, based on the teachings of Kandimalla (2001) with regards to the deoxy-P-base modification, would not have expected that the instantly claimed modification to be immunostimulatory. The fact that it was immunostimulatory is a surprising result.

Reliance by the Office Action solely on the structural similarity continues to ignore that Kandimalla ('757) only states that these oxygen and nitrogen groups can serve as **potential** recognizing and interacting groups with receptors since the exact mechanism of receptor-ligand interaction is not known. It also ignores that despite any structural similarity between deoxy-P-base and the instantly claimed modification, a CG-containing oligonucleotide having a deoxy-P-base modification resulted in a dead molecule whereas the instantly claimed modification resulted in a functional molecule. Thus it is unclear how the Office Action can say that the Applicants have presented no evidence that claimed compounds are acting differently. In fact, it is the Office Action that has failed to provide any evidence as to how a non-active deoxy-P-base modification renders the instant claims obvious. It appears that the Examiner is basing the rejection his own speculation or personal knowledge. Therefore, in the absence of support for this assertion, Applicants respectfully request that the Examiner provide an Affidavit attesting to his/her specific knowledge of the art.

Moreover, although the Office Action correctly points out that Kandimalla (2001) describes linear CG-containing oligonucleotides rather than an "immunomer" (i.e., two oligonucleotides linked at their 3'ends via a non-nucleotidic linker), the Office Action continues to incorrectly state that Kandimalla ('757) teaches two oligonucleotides linked at their 3' ends to a non-nucleotidic linker. Nowhere is this language found in Kandimalla ('757). Regardless, the

linking of two dead molecules (e.g., two CG-containing oligonucleotide having a deoxy-P-base modification) at their 3'ends via a non-nucleotidic linker would not result in an immunostimulatory molecule.

As the cited art fails to teach or suggests an oligonucleotide comprising the instantly claimed RpG dinucleotide, or the linking of two such oligonucleotides via a non-nucleotidic linker, reconsideration and withdrawal of the rejection is respectfully requested.

Provisional obviousness-type double patenting

Claims 1 and 31 are provisionally rejected over various claims of copending Application Nos. 10/361,111; 10/865,245; 10/925,873; 11/153,054; and 11/174,002.

As stated by the Examiner, this is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Please note that, with regards to patent term, U.S. Application Nos. 10/361,111; 10/865,245; 10/925,873; 11/153,054; and 11/174,002 are the later filed applications.

Therefore, if this provisional double patenting rejection is the only remaining rejection in the application, Applicants request that the Examiner withdraw the rejection in the instant [earlier filed] application thereby permitting this application to issue without need of a terminal disclaimer. (See MPEP §804(I)(B)). Applicants will then consider filing a Terminal Disclaimer or take any other action deemed necessary in the later filed, copending applications.

Claims 1 and 31 are provisionally rejected over various claims of copending Application Nos. 10/694,383 and 10/694,586.

Applicants respectfully disagree. As stated above, the cited art fails to teach or suggests an oligonucleotide comprising the instantly claimed RpG dinucleotide, or the linking of two such oligonucleotides via a non-nucleotidic linker. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1 and 31 are provisionally rejected over various claims of U.S. Patent No. 7,276,489.

Applicants respectfully disagree. As stated above, the cited art fails to teach or suggests an oligonucleotide comprising the instantly claimed RpG dinucleotide, or the linking of two such

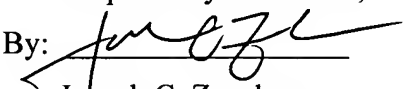
oligonucleotides via a non-nucleotidic linker. Reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

Dated: October 1, 2008

By: 

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